

# Social Anxiety and Benign and Toxic Online Self-Disclosures

## *An Investigation Into the Role of Rejection Sensitivity, Self-Regulation, and Internet Addiction in College Students*

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**Abstract:** This work aimed to explore the relationship between social anxiety with benign and toxic online self-disclosures with the mediating role of rejection sensitivity, self-regulation, and Internet addiction. In this study, 358 students who were active members of social networks at the Mohaghegh Ardabili University, Iran were evaluated in the form of a structural equation model. The results substantiated that social anxiety could explain 47% of the variance in benign online self-disclosure and 27% of toxic online self-disclosure with the mediating role of rejection sensitivity, self-regulation, and Internet addiction. It was found that people with high social anxiety had higher rejection sensitivity and lower self-regulation. Also, people with higher social anxiety had directly higher benign and toxic online self-disclosures. The results indicated that self-regulation did not have a direct impact on benign online self-disclosure; however, it had a direct negative impact on toxic online self-disclosure.

**Key Words:** Social anxiety, toxic self-disclosures, rejection sensitivity, internet addiction

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In many countries, Internet has become an important tool for close communications among friends (Lenhart et al., 2005) and that the majority of young people take advantage of it to maintain friendly relations and share their thoughts and feelings with each other (Gross, 2004; Schouten et al., 2007). According to statistics, the number of Iranian Internet users who are mostly teenager and young consisted of 11 million ones in 2006 and 36 million ones in 2012, that is, 45% of the population of the country; accordingly, Iran has the first rank in the Middle East (Zarbakhsh Bahri et al., 2013). The obtained results are contradictory to the effectiveness of using cyberspace and the Internet. Some results indicate the effect of online communications on the reduction of real interpersonal interactions (Nie, 2001), the decrease of psychological well-being and social conflicts (Kraut et al., 1998; Schiffrin et al., 2010), and the increase of loneliness and family problems (Ong et al., 2011), whereas according to some results, online communications have been a positive impact on social relations (Bessiere et al., 2008; Valkenburg and Peter, 2007). The results of studies are inconsistent in terms of the usefulness of self-disclosure in cyberspace. Some studies have shown that self-disclosure is useful for people with social anxiety (Schouten et al., 2007) and shy (Orr et al., 2009), whereas some others have indicated that, in the problems of low social anxiety, online self-disclosure has no effect on increasing the quality of their friendship (Valkenburg and Peter, 2007; Wang et al., 2011).

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Research shows that self-disclosure varies across various cultures (Almakrami, 2015). So, the influence of social networks and online communication and the role of culture in the rate and type of self-disclosure are essential to be addressed. The studies suggesting the use of online communications for socially anxious individuals have ignored Internet addiction and toxic online self-disclosure. Therefore, in this study, the relationship between social anxiety and type of online self-disclosure is first considered. Second, personal factors mediating the relationship between social anxiety and benign and toxic online self-disclosures such as rejection sensitivity, self-regulation, and Internet addiction are taken into account.

### Self-Disclosure

Self-disclosure is the quantity and quality of information that a person gives to another and the behavior that a person reveals his personal information within a communication (Andrade et al., 2002). Studies have suggested that online self-disclosure has different effects. Online self-disclosure is related to making friend skill (Buhrmester et al., 1988), social protection (Simpkins et al., 2006), satisfaction of basic psychological needs (Ang et al., 2015; Smock et al., 2011), and quality of friendship (Rose, 2002). There is a dearth of research on the negative impacts of online self-disclosure; however, the results show that online self-disclosure may lead to cyberbullying and delinquent behaviors (Suler, 2004). Online activities reduce signs and clues such as audio, video, and excitement compared with face-to-face communications. These factors cause people to disclose their private secrets to a greater extent (Green et al., 2016; Joinson, 2001) and with more intimacy (Green et al., 2016). The results of the previous studies reflect the difference between online and offline self-disclosures (Knop et al., 2016; Nguyen et al., 2012); however, there are inconsistencies in the results obtained in relevant studies (Nguyen et al., 2012). Speculations suggest that online self-disclosure is far greater than offline one (Suler, 2004). Although it is argued that the level of self-disclosure is different in online and offline ones depending on the conditions (Nguyen et al., 2012), no integrated study has so far been carried out on toxic self-disclosure. It is assumed that online toxic self-disclosure is more because it probably occurs when a person is quite alone and has no specific involvement. So, the ground needed to address the risk-taking issues; that is, sexual issues, exchanging sexual images, personal images of themselves, and subsequently, expressing their own secrets, and their friends' and family's personal secrets is provided more than that of offline self-disclosure. In this regard, Knop et al. (2016) suggested that the level of offline self-disclosure had more quantity, spread, and depth; however, it is less valuable than online self-disclosure. Thus, the investigation of toxic self-disclosure that can be different from deep self-disclosure depending on culture is more necessary.

### Social Anxiety and Self-Disclosure

Social anxiety is determined by constant and extreme fear and avoidance of other people's negative assessment (American Psychiatric

Association, 2013). Such people like to enter into social situations but are afraid of failure in social interactions. Thus, they have difficulty to establish an intimate relationship with others (Leary and Kowalski, 1997; Schlenker and Leary, 1982). The issue of social relationships has been proposed as a complex and important issue, especially for people with social anxiety in virtual world (Green et al., 2016; van Deursen et al., 2015). Some studies reflect the relationship among rejection, social anxiety, and Internet interactions (Caplan, 2007; Erwin et al., 2004). Lapidot-Lefler and Barak (2015) stated that due to the unknown identity and invisible body language in people with social anxiety, the emergence of emotions is facilitated in cyberspace because they tend to go toward areas with lower risks (Leary and Kowalski, 1997). These people are more comfortable with online communications (Pierce, 2009) and even prefer it (Caplan, 2007) and thus, the possibility of avoiding real relationships is reduced (Markovitzky et al., 2012). Studies have shown that, for individuals with social anxiety, online self-disclosure causes the development of their individual interactions (Markovitzky et al., 2012); however, attitude (Schouten et al., 2007), controllability, and disinhibition (Green et al., 2016) affect their trust to disclose personal issues (Sheldon and Pecchioni, 2014) and that the rate of shyness (Brunet and Schmidt, 2007) affects their online self-disclosure. Research on using online communication and the effectiveness of self-disclosure is inconsistent so that online self-disclosure is more effective for nonanxiety people (Kraut et al., 1998). In a regression analysis, Wang et al. (2011) showed that online communication and self-disclosure were not positively associated with the quality of friendship. So, given that social anxiety cannot predict online self-disclosure alone (Green et al., 2016), it is therefore required to pay special attention to the role of mediators. According to the available studies, the following hypotheses are formulated:

- H1a: Social anxiety negatively influences self-regulation.
- H1b: Social anxiety positively influences rejection sensitivity.
- H1c: Social anxiety positively influences Internet addiction.

### Rejection Sensitivity, Self-Regulation, and Online Communication

One of the most important issues associated with social interactions is rejection sensitivity, that is, perception, expectation, and excessive reaction to rejection. These people easily interpret ambiguous interpersonal situations as a rejection of others and reflect negative reactions to real or imagined feelings (Downey and Feldman, 1996). Rejection sensitivity increase jealousy and subsequently aggression (Murphy and Russell, 2018) and depression (Norona et al., 2016) in interpersonal communications. Downey et al. (1998) postulated that rejection sensitivity can augment the anxiety of expectation in individuals and the experiences of previous rejection increase rejection sensitivity (Wang et al., 2012). People with rejection sensitivity usually respond to the perception of rejection with a defensive behavior (Downey et al., 1998). It should be noted that rejection sensitivity results in maladjustment (McDonald et al., 2010). However, not all people with rejection sensitivity have interpersonal problems (Freitas and Downey, 1998). Rejection sensitivity leads to more difficulty when it is accompanied with problematic personality traits such as poor self-regulation (Ayduk et al., 2008; Gyurak and Ayduk, 2008). Wang et al. (2016) reported that when rejection sensitivity is accompanied with low agreeableness, it leads to withdrawal and the discontent of friends. Although rejection sensitivity is an important issue in interpersonal interactions, its role has been considered too little in online interactions. Some studies have shown that online interactions decrease rejection stress in virtual environments in people with social anxiety (Caplan, 2007; Erwin et al., 2004) and increase the use of Facebook (Farahani et al., 2011). People with interaction sensitivity turn to computer-mediated communication and Facebook to communicate with others

and timid people use Facebook more (Orr et al., 2009; Ryan and Xenos, 2011). Therefore, in accordance with the above considerations, the following hypotheses are formulated:

- H2a: Rejection sensitivity negatively influences self-regulation.
- H2b: Rejection sensitivity positively influences Internet addiction.

Self-regulation is defined as self-control (Muraven et al., 1999), willpower (Baumeister and Tierney, 2011), and endurance (Bandura, 1995). Self-regulation includes the ability to regulate behavior (Storey, 2002) and tolerance and control of emotions (Thompson, 1994). Studies show that self-regulation is associated with success and emotional well-being (Baumeister and Vohs, 2003) and reduction of delinquent behavior and substance abuse (Moffitt et al., 2011). Difficulty in emotion regulation leads to extensive use of the media and its abuse (LaRose and Eastin, 2004). Reviewing the literature of the study in this area suggests that the mechanisms of emotion regulation result in Internet addiction (Dawe and Loxton, 2004; LaRose et al., 2003), smartphone addiction (Jeong et al., 2016; van Deursen et al., 2015), and addiction to online games (Seay and Kraut, 2007). Thus, in line with these studies, the following hypotheses are formulated.

- H3a: Self-regulation negatively influences Internet addiction.
- H3b: Self-regulation influences self-disclosure.
- H3c: Self-regulation negatively influences toxic self-disclosure.

### Internet Addiction and Self-Disclosure

Internet addicts are exposed to both the target of misuse, harassment, privacy risks, seeing porn photos, and violent contents (Athanasiaides et al., 2016; Leung and Lee, 2012), and the abuse of others (Athanasiaides et al., 2016; Gámez-Guadix et al., 2016). Internet addiction has a significant relationship with aggression, online gambling, viewing sexual photos, and online games (Ko et al., 2009). Gámez-Guadix et al. (2016) demonstrated that the amount of online is relevant to both cybervictimization and cyberbullying so that the cybervictimization is more within the youth with active profiles on social networks and chat rooms (Mesch, 2009). So, high-risk and over use of the Internet paves the way for cyberbullying (Erdur-Baker, 2010). To the best of our knowledge, no study has so far been conducted on the mediating role of the relationship between using Internet and cyberbullying. One of these mediators may be online self-disclosure, because in some online bullying, one probably gives information to bullying person and the information is then abused. According to the theories of social psychologists, people can be forced to follow our orders without any pressure using techniques (Young, 2016). Therefore, self-disclosure is an appropriate tool in order for others to give us their private secrets (Derlaga and Berg, 2013). That is why criminals in cyberspace may take advantage of this technique to persuade their victims. Because the rate of self-disclosure is more on private Internet environments than public environments (Green et al., 2016; Schouten et al., 2007), it is likely that the bullying person cannot go ahead until self-disclosure and exchange of personal information occur. Therefore, according to the conducted studies, the following hypotheses are formulated.

- H4a: Internet addiction positively influences benign self-disclosure.
- H4b: Internet addiction positively influences benign self-disclosure.
- H5a: Self-disclosure positively influences toxic self-disclosure.

### Iranian Culture and Computer-Mediated Communication

Cyberspace and Internet have had positive and negative impacts on the Iranian culture. Because of cultural beliefs about the veil and lack of communication with the opposite sex, Iran has faced with a major challenge on the use of the Internet and cyberspace. Many Iranian families have problems with virtual communication of their children and

disclosure of their personal information (e.g., sharing the photo without veil of an Iranian girl on social networks is not good), whereas with the growth of the Internet, some youths ignore their cultural and family laws and exchange their photos and private issues in social networks. In the meantime, through the misuse of personal information and publicizing them in cyberspace, some people have ruined the reputation of many families, brought about family disputes and even the separation of couples. So, the phenomenon of the Internet and toxic self-disclosure in cyberspace in Iran is considered a great challenge that requires extensive studies.

## The Current Study

This study sought to investigate the relationship between social anxiety and benign and toxic online self-disclosures according to the moderating role of self-regulation, rejection sensitivity, and Internet addiction. To the best of our knowledge, no study has so far been carried out on the role of benign and toxic online self-disclosures on people with social anxiety. Some studies have only pointed to the depth of self-disclosure (Valkenburg and Peter, 2007; Wang et al., 2011), which represents that it is not toxic according to the culture. No study has so far been conducted on rejection sensitivity as a personality trait, which is important in interpersonal communication in online interactions. In one study, it was only shown that rejection sensitivity had increased the use of Facebook (Farahani et al., 2011). In addition, the role of Internet addiction on the rate of online self-disclosure in people with social anxiety has not been addressed yet. So, persons with social anxiety may turn to online communications due to the fear of real ones and engage to the Internet addiction. They may even fall into the trap of toxic self-disclosure, which will have irreparable consequences for them. Studies have shown that people with social anxiety more easily deal with self-disclosure in private environments than that in public ones (Green et al., 2016; Schouten et al., 2007). Therefore, in this study, two types of online self-disclosure, that is, benign and toxic self-disclosures in people with social anxiety, have been evaluated, and the role of mediators of rejection sensitivity, self-regulation, and Internet addiction have been examined according to the type of self-disclosure. Given the studies conducted in this respect, the study hypotheses are presented in the following conceptual model (Fig. 1).

## METHODS

### Participants and Procedure

The research design was cross-sectional. A total of 1350 students at the Mohaghegh Ardabili University were first selected to achieve at

least 300 students using cluster sampling technique. The questionnaire of demographic variables was distributed with questions such as membership in social networks (such as Facebook, Twitter, WhatsApp, Telegram, Instagram, and Line), having a smartphone or private laptop, the amount of online in the social networks and daily using Internet. After the data were collected, inactive students on social networks, offline on social networks, using Internet less than 2 hours per day, not having a smartphone or private laptop connected to the Internet, and incomplete questionnaires were excluded from the study process, and a total of 358 cases (male, 156; female, 202) were eventually selected for data analysis. The mean age of students was 21 years ( $SD = 3.52$ ). Seventy-three percent and 27% of students were bachelor and undergraduate, respectively. According to Young's Internet Addiction Test (Young, 1998), cut point scores 62.8%, 28%, and 9.2% had no addiction, at the risk of addiction, and Internet addiction, respectively.

### Measures

Young's Internet Addiction Test (IAT) was used to assess Internet addiction, and this questionnaire has been designed in 20 items by Young (Young, 1998). High scores indicate the problematic use of the Internet. Lyvers et al. (2016) reported the validity and reliability of IAT as satisfactory and its Cronbach's alpha coefficient was obtained as 0.96.

Social Phobia Inventory contains 17 items evaluating social anxiety in three domains of fear, avoidance, and physiological arousal in a 5-point scale from 0, not at all, to 4, extremely during the past week (Connor et al., 2000). Antony et al. (2006) and Shikatani et al. (2016) confirmed the psychometric properties of this scale.

To measure rejection sensitivity, Rejection Sensitivity Questionnaire made by Downey and Feldman (1996) was used, which has 18 questions of two parts (A and B) and is based on 6-point Likert scale. Section A of each question is about the rate of anxiety, which is felt in the situation related to that question, and section B evaluates the possibility receiving a positive response from the other party. For example, one of the questions is whether your friend wants to do a great kindness for you or not (from 1, I'm not worried at all, to 6, I'm very concerned), and section B is related to how likely his friend gladly accepts such a kindness (from 1, very low probability, to 6, very much probability). Downey and Feldman (1996) confirmed the psychometric properties of this scale.

Self-regulation was evaluated using Affective Style Questionnaire of Hofmann and Kashdan (2010). This scale consists of 20 questions, which are in 5-point Likert scale from infinite "it is right about

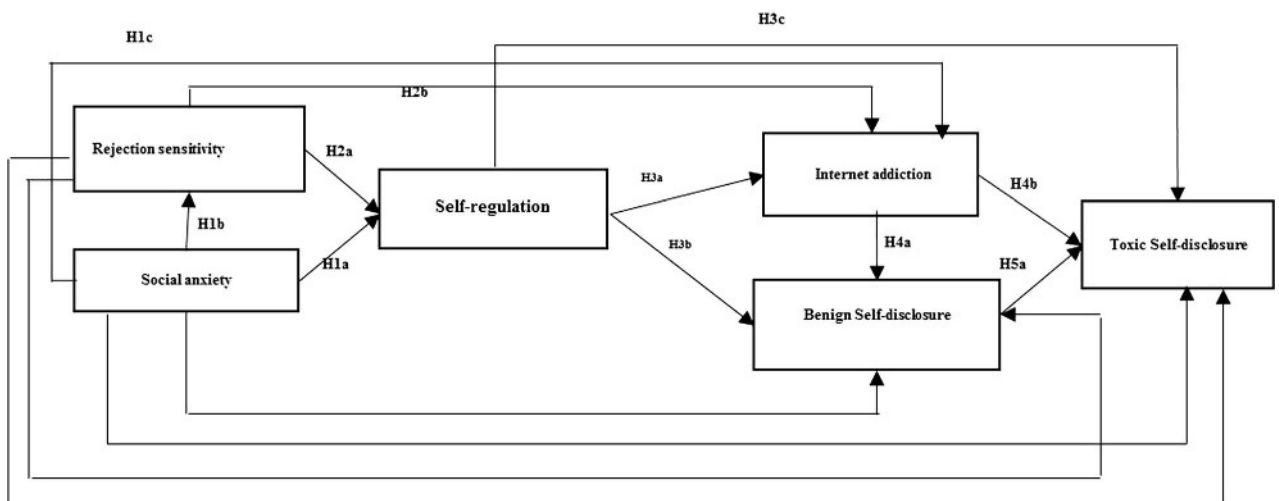


FIGURE 1. Hypothetical models and proposed hypotheses.

me” to “it is never true about me.” The questionnaire has three components or subscales of concealing, adjusting, and tolerating on which there are eight, seven, and five items evaluating the individual differences in the emotion regulation. Ito and Hofmann (2014) confirmed the psychometric properties of this scale.

To assess benign online self-disclosure, Valkenburg and Peter online self-disclosure questionnaire made to examine breadth and depth of online communication was used. In general, the questionnaire measures virtual or online self-disclosure (Valkenburg and Peter, 2007). This test has nine items in the way that four items are related to breadth of online communications and five items are related to the depth of on-line communications, and they are measured in a 5-point Likert from strongly disagree, 1, to strongly agree, 5. In this study, the item “they talk about sex on the Internet easier than face-to-face communications” was removed because it is classified into toxic self-disclosure according to Iranian culture. In the item “they easily talk about their secrets on the Internet compared to the face-to-face communications,” the term secrets were changed into not very important secrets. Wang et al. (2016) confirmed the psychometric properties of this test and reported Cronbach's alpha coefficient of the scale equal to 0.74. In this study, the scale was confirmed using confirmatory factor analysis and Cronbach's alpha coefficient equal to 0.83.

Toxic online self-disclosure was evaluated using five 5-point questions from strongly agree, 5, to strongly disagree, 1. Two sample items included “Sharing very private photos is easier on the Internet compared to the face-to-face communications” and “talking about sexual issues is easier on the Internet compared to the face-to-face communications.” In this study, the psychometric properties of this scale were confirmed and its Cronbach's alpha coefficient was obtained 0.77. According to the depth of online self-disclosure of Valkenburg and Peter (2007), depth of self-disclosure is not toxic yet. So the authors distinguished toxic online self-disclosure from Valkenburg and Peter (2007) depth of online self-disclosure and prepared a scale to measure toxic online self-disclosure.

RESULTS

The participants reported 2.24 hours (SD = 0.93) for the mean online in social networks and 3.85 hours (SD = 1.16) for the mean use of the Internet. Considering several memberships in social groups, among them, 78% was active member on Telegram, 64% on Instagram, 56% on WhatsApp, 48% in Line, 35% on Facebook, and 8% on Twitter. All assumptions to evaluate the structural equations were confirmed.

According to Hoelter's critical N for the mode provided in Figure 2, the minimum sample suggested was 258 cases for the level of significance of 0.05 and 302 ones for the level of significance of 0.01 so that the study sample was considered 358 cases in this study (Fig. 2). Skewness was also lower than one for all the variables.

Testing the Model

In this study, AMOS-22 Software and four indexes of the model fit were used to evaluate the comprehensive model fit including relative chi-square ( $\chi^2/df$ ), Tucker-Lewis index (TLI), and the root mean square error of approximation (RMSEA) and index comparative fit (CFI) (Kline, 2010). The model fit for  $\chi^2/df$  less than to 2, between 2 and 5, and greater than 5 are considered excellent, good, and weak and unacceptable, respectively (Tabachnick and Fidell, 2007). Kline (2010) evaluated the index good model fit, if it is less than 3. The closer the TLI and CFI to one, the better the model fit is; however; this rate should at least be 0.90 in order for the desired model to be accepted (Bollen, 1990). On RMSEA, value higher than 10, between 8 and 10, between 0.5 and 0.08, and less than 0.05 represent poor, average, acceptable, and excellent fits, respectively (Browne et al., 1993). To evaluate the model fit, the paths that were the component of the study hypotheses were drawn and the model was fitted. So, the fit indicators reported in Table 1 are only based on the paths of the study hypotheses (Table 1). In the next stage, the paths that were not part of the hypotheses were drawn, and their effects were assessed for additional information. For better model fit, self-regulation and online self-disclosure were considered latent variables (Fig. 2).

The results to the fit of model test whose standard coefficients have been given in Figure 2 include  $\chi^2/df = 2.19$ ,  $\chi^2 (21) = 46.150$ , TLI = 0.94, CFI = 0.96, and RAMSEA = 0.058, indicating a good model fit (Fig. 2). The model fit indicates that 47% of the variance in benign online self-disclosure and 27% of toxic online self-disclosure is predicted by the model. Figure 2 shows the path coefficients related to the study hypotheses (Fig. 2). R squared corresponding to each endogenous variable has also been estimated. The correlation matrix of study variables is given in Table 2. As it can be seen in the Table 2, social anxiety has a significant relationship with all the variables (Table 2).

Overview of the Hypotheses

The significance of direct and indirect effects of social anxiety, rejection sensitivity, self-regulation, and Internet addiction on benign

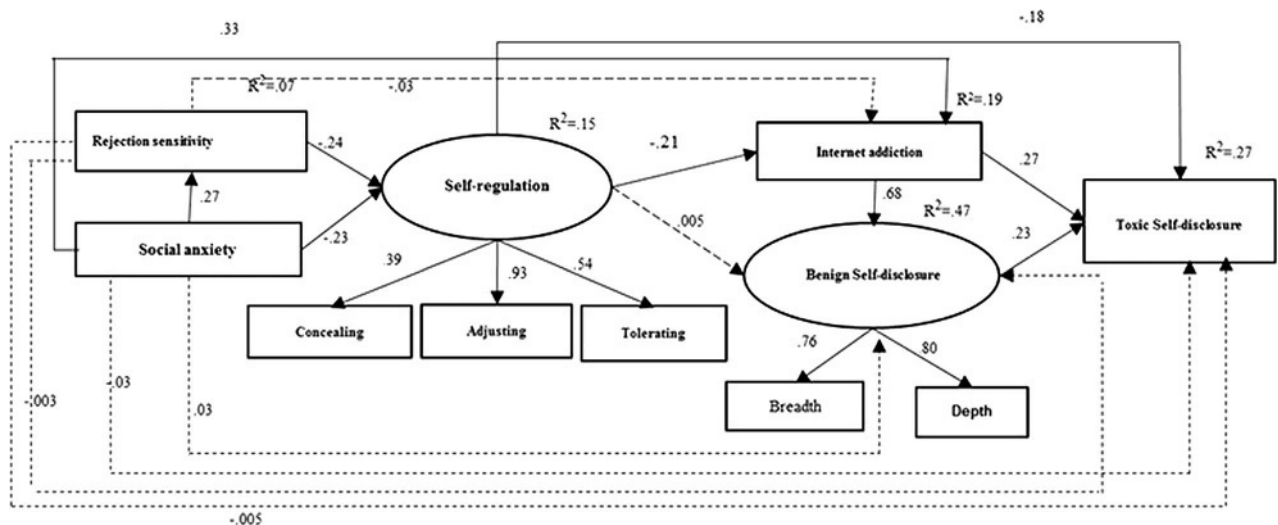


FIGURE 2. Structural and path model, with path coefficients, the dotted lines are insignificant paths.

**TABLE 1.** Significance of Direct and Indirect Effects, Total Social Anxiety, Rejection Sensitivity, Self-Regulation and Internet Addiction on Online Benign and Toxic Self-Disclosures

Link	Direct Effect $\beta$	Indirect Effect $\beta$	Total Effect $\beta$	Supported or Rejected
H1a. Social anxiety $\rightarrow$ Self-regulation	-0.23**	-0.06**	-0.29**	Supported
H1b. Social anxiety $\rightarrow$ Rejection sensitivity	0.27**	—	0.27**	Supported
H1c. Social anxiety $\rightarrow$ Internet addiction	0.33**	0.058*	0.39**	Supported
H2a. Rejection sensitivity $\rightarrow$ Self-regulation	-0.24**	—	-0.24**	Supported
H2b. Rejection sensitivity $\rightarrow$ Internet addiction	-0.03	0.053**	0.02	Rejected
H3a. Self-regulation $\rightarrow$ Internet addiction	-0.21**	—	-0.21**	Supported
H3b. Self-regulation $\rightarrow$ Benign Self-disclosure	0.005	-0.152**	-0.147*	Rejected
H3c. Self-regulation $\rightarrow$ Toxic Self-disclosure	-0.16**	-0.09**	-0.25**	Supported
H4a. Internet addiction $\rightarrow$ Benign Self-disclosure	0.68**	—	0.68**	Supported
H4b. Internet addiction $\rightarrow$ Toxic Self-disclosure	0.27**	0.15**	0.42**	Supported
H5a. Benign Self-disclosure $\rightarrow$ Toxic Self-disclosure	0.23**	—	0.23**	Supported

\*\* $p < 0.01$ ; \* $p < 0.05$ .

According to the results of data analysis in AMOS software, all significant hypotheses have been reported as two-tailed.

and toxic self-disclosures is given in Table 1. In this study, 11 hypotheses were formulated as observed in Table 1 and Figure 2. All path coefficients of direct effects related to the study hypotheses were significant except for the direct effect of self-regulation on benign self-disclosure as well as the direct effect of rejection sensitivity on Internet addiction (H1a). The hypothesis that social anxiety had a significant positive effect on rejection sensitivity was confirmed. The effect of anxiety sensitivity was negative and significant on self-regulation, which confirmed the hypotheses H1b and H1c. Rejection sensitivity had a direct, negative, and significant effect on emotion self-regulation, which confirmed the hypothesis H2a. No direct and significant positive effect of the rejection sensitivity on Internet addiction was obtained; therefore, hypothesis H2b was not confirmed. Self-regulation had a significant direct effect on Internet addiction and toxic online self-disclosure, so the hypotheses H3a and H3b were confirmed, whereas self-regulation had no significant direct effect on online self-disclosure; accordingly, hypothesis H3b was rejected. It was found that Internet addiction had a significant direct effect on benign and toxic online self-disclosures so that hypotheses H4a and H4b were confirmed. Benign online self-disclosure had a significant direct effect toxic online self-disclosure so that hypothesis H5a was confirmed. In Figure 2, the path coefficient of the variables that did not belong to the study hypotheses were also examined (Fig. 2). As it can be seen, social anxiety and rejection

sensitivity had no significant direct effect on benign and toxic online self-disclosures.

Table 1 shows that all indirect and total effects related to the study hypotheses were confirmed on Internet addiction except for the total effects of anxiety sensitivity through self-regulation (Table 1).

## DISCUSSION

Today, the Internet has become an accessible tool for social interactions. Besides, the crucial role of smartphones in increasing tendency toward social groups and Internet is undeniable (Gökçearslan et al., 2016; Kraut et al., 2002). Therefore, we here investigated the mediating role of rejection sensitivity, self-regulation, and Internet addiction in the relationship between social anxiety and benign and toxic online self-disclosures according to a model extracted the literature and previous studies and its hypotheses.

In the first step, the results showed that social anxiety and rejection sensitivity had no direct and determinant role in benign and toxic online self-disclosures, and that mediators played an important role in this effect (Gökçearslan et al., 2016; Green et al., 2016; Schouten et al., 2007). So, it becomes clear that, for people with high social anxiety and rejection sensitivity, this is not the only problem that plays an important role in the tendency to online self-disclosure, and those who have such problem may go toward online self-disclosure by mediators. Previous

**TABLE 2.** Correlation Matrix Among the Study Variables

	Mean	SD	1	2	3	3.1	3.2	3.3	4	5	5.1	5.2
1. Social anxiety	18.40	6.58										
2. Rejection sensitivity	8.78	3.89	0.26**									
3. Self-regulation	68.71	10.97	-0.19**	-0.25**								
3.1. Concealing	27.05	6.01	-0.01	-0.13*	0.82**							
3.2. Adjusting	24.95	4.88	-0.28**	-0.28**	0.78**	0.36**						
3.3. Tolerating	16.69	3.07	-0.23**	-0.18**	0.71**	0.38**	0.49**					
4. Internet addiction	45.56	18.76	0.39**	0.12*	-0.13*	0.03	-0.30**	-0.07				
5. Benign Self-disclosure	24.42	8.25	0.25**	0.07	-0.04	0.09	-0.18**	-0.04	0.59**			
5.1. Breadth	13.51	3.99	0.24**	0.09	-0.02	0.11*	-0.16**	-0.03	0.51**	0.86**		
5.2. Depth	10.91	5.19	0.21**	0.05	-0.05	0.06	-0.15**	-0.05	0.55**	0.92**	0.60**	
6. Toxic Self-disclosure	8.76	3.24	0.19**	0.09	-0.24**	-0.11*	-0.27**	-0.22**	0.46**	0.38**	0.33**	0.35**

\*\* $p < 0.01$ ; \* $p < 0.05$ .

research has also shown that attitude (Schouten et al., 2007) and trust to disclose private issues (Sheldon and Pecchioni, 2014) are the factors affecting such relationships. Therefore, it is clear that everyone with social anxiety does not easily do self-disclosure in their virtual world and that personal factors play an important role in this regard.

The current study showed that self-regulation had a negative impact on Internet addiction. According to this result, it can be explained that people with low self-regulation is at the risk of Internet addiction (Dawe and Loxton, 2004) and online games (Seay and Kraut, 2007). Gökçeşarlan et al. (2016) concluded that low self-regulation increases the addiction to smartphones. Due to loss of self-control (Muraven et al., 1999) and willpower (Baumeister and Tierney, 2011), students with low self-regulation cannot manage to use their smartphones. So, self-regulation can be used as a convenient tool to reduce Internet addiction. It can also be observed that self-regulation had a significant and negative effect on toxic online self-disclosure. No study has so far examined the relationship between self-regulation and benign and toxic self-disclosures. However, the results show that self-regulation is involved in reducing high-risk behaviors (Moffitt et al., 2011). Therefore, this factor causes self-regulating individuals not to exchange their private and super-secret information with others. We found that self-regulation had a positive impact on benign online self-disclosure; however, this rate was not significant, that is, self-regulation results in somewhat self-disclosure but not significant. Thus, self-regulation can be a good mediation to reduce high-risk behaviors for individuals with social anxiety and high rejection sensitivity to reduce the risk of Internet addiction and self-disclosure.

This study gives us further understanding on the use of Internet and online communication for individuals with anxiety. As it was stated, anxious people turn to virtual world and secure environments for social interactions (Erwin et al., 2004; Leary and Kowalski, 1997). These environments can play a large role in increasing social interaction and development (Green et al., 2016; Koutamanis et al., 2013) and subsequently, increasing psychological well-being and academic progress (Crosnoe et al., 2003). The impact self-disclosure on increasing interpersonal interactions is to the extent that some studies suggest that self-disclosure is better to be done in private environments rather than in public ones (Green et al., 2016). The overlooked point in the previous research is to simultaneously consider the positive and negative roles of online self-disclosure for people with social anxiety or whether self-disclosure in private environments can have inappropriate cultural consequences or not. The results of this study show that people with social anxiety are also at the risk of problematic use of the Internet, and because they are sensitive to be rejected in real-life world, they turn to virtual world so that using it provides the ground for Internet addiction and online self-disclosure in them. It is also suggested that without considering the role of factors such as Internet addiction and toxic online self-disclosure, people with social anxiety should not be advised to take advantage of online communications as a way to increase social interactions because the most important problem is Internet addiction as well as an increase in the risk of toxic self-disclosure. The most important point in toxic self-disclosure and the role of culture have been neglected in the studies on people with anxiety. Self-disclosure is a cultural issue (Almakrami, 2015). Many self-disclosures conducted on the Internet are not good in all cultures and may create irreparable consequences for families. In Iran, entering into others' private life as their friends via social groups is a way for many people to crook or extort others by threatening to release their private information on the Internet.

Theoretically, the results of this study indicate that benign self-disclosure provides the required ground for toxic self-disclosure. Moreover, Suler (2004) suggested that self-disclosure causes the manifestation of virtual bullying behavior. With regard to the theories of social psychology, the issue can theoretically be explained. Accepting small demands paves the way to accept big demands (Young, 2016), so benign

self-disclosure is a path to high-risk behaviors in the cyberspace. Therefore, it may be argued that when common issues are addressed with other people in online communications, the ground is gradually provided to state very private issues and the disclosure of important life secrets. In virtual world, because the body language of the other party is not understood for us, he can raise his privacy life issues as false and compel the other party to state their private issues. Although it is true that people with social anxiety learn necessary skills for social interactions due to inhibition, controllability, and reducing body language (Green et al., 2016), it should not be ignored that the lack of body language and disinhibition provide the ground for toxic self-disclosure and, consequently, cyberbullying.

## LIMITATIONS AND RECOMMENDATIONS

This study has several limitations to be addressed. In this study, Internet addiction was one of the variables discussed, and the observed mean indicated that a small number of students had Internet addiction. Therefore, the investigation of the role of the variables in groups with Internet addiction seems necessary. As the study was cross-sectional, the rate of changes in online self-disclosure in people with social anxiety over time cannot be determined. Thus, it is better to assess the changes of benign and toxic online self-disclosures over time. Using self-report questionnaire is one of the limitations of this study because self-disclosure phenomenon is not considered acceptable in Iran, and respondents might have wanted to introduce themselves good to others. Therefore, it is better to take advantage of other methods of data collection including the use of electronic questionnaires in this regard. Also, to limit the study samples to college population, it should be taken into account to generalize the results to other sectors of the society. Because Internet addiction and online communication are associated with virtual bullying (Suler, 2004), it is better to examine the role of social anxiety and benign and toxic online self-disclosures in both victims of bullying and cyberbullying in future studies. No significant direct relation was found between self-regulation and benign online self-disclosure. Accordingly, it is recommended to assess its positive as well as negative impacts in future studies.

## CONCLUSIONS

This study sought to evaluate a model to determine the mediating role of rejection sensitivity, self-regulation, and Internet addiction in explaining the relationship between social anxiety and benign and toxic online self-disclosure. Evidence showed that social anxiety was not directly involved in the prediction of benign and toxic online self-disclosures. Rejection sensitivity, self-regulation, and Internet addiction mediate this relationship in a way that such variables explain 47% of variance of benign online self-disclosure and 27% of the variance of toxic online self-disclosure. So it is evident that considering mediators ignored in other studies can be important in this respect. This study plays an important role in understanding benign and toxic online self-disclosures and the relationship between these variables and that variable. Self-disclosure had no direct and significant impact on benign online self-regulation; however, it had a significant negative effect on toxic online self-disclosure. In addition, Internet addiction had a significant positive effect on both benign and toxic online self-regulations. Therefore the study highlights the significance of Internet addiction in the studies conducted on online self-regulation, especially for people with social anxiety.

## DISCLOSURE

*The authors declare no conflict of interest.*

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